

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on October 8, 2002, and the references cited therewith. In response thereto, Applicant has deleted claims 10, 15 and 42, and amended claims 1, 11-32, 43-45, 47 and 54-57. Reconsideration of the claims is respectfully solicited.

First §103 Rejection of the Claims

Claims 1-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu et al. (US 2002/0100693) in view of Ho et al. (U.S. Patent No. 6,261,954).

The Lu et al. published patent application is a removable reference under 35 U.S.C. §102(e). Applicant reserves the right to swear behind the Lu et al. published patent application at a latter date but chooses at this time to merely distinguish the Lu et al. patent application.

The Ho et al. patent is a removable reference under 35 U.S.C. §102(e). Applicant reserves the right to swear behind the Ho et al. patent at a latter date but chooses at this time to merely distinguish the Ho et al. patent.

Claim 1 has been amended to describe using two electrolytes where the first electrolyte is the cation of the anode in an electrochemical reaction cell. This limitation combined with the other limitations of claim 1 describes elements not found in the combination of the Lu et al. published patent application and the Ho et al. patent. In addition, amended claim 1 contains limitations similar to those found in allowable claim 12. For these reasons, Applicant respectfully submits that independent claim 1 and dependent claims 2-9 which depend upon claim 1 are now in a condition for allowance. Applicant respectfully solicits reconsideration and allowance of claims 1-9.

Second §103 Rejection of the Claims

Claims 10 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu et al. Claim 10 has been deleted thereby obviating the rejection.

Claim 11 has been amended to depend upon claim 12 which was indicated as allowable if re-written to be in independent form including all of the limitations of the base claim and any

intervening claims. As indicated below, claim 12 has been so rewritten such that claim 11 as amended is also in a condition for allowance. Applicant respectfully solicits reconsideration and allowance of claim 11.

Third §103 Rejection of the Claims

Claims 15-24, 28-32, 34, and 36-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu et al. in view of Ho et al. Claim 15 has been deleted thereby obviating the rejection.

Claims 16-24 and 28-31 have been amended to depend upon claim 25 which was indicated as allowable if re-written to be in independent form including all of the limitations of the base claim and any intervening claims. As indicated below, claim 25 has been so rewritten such that claims 16-24 and 28-31 are also in a condition for allowance. Reconsideration and allowance of claims 16-24 and 28-31 is respectfully solicited.

Claim 32 has been rewritten to be an independent claims which includes the limitations of original claim 15 and to include the limitation that the first electrolyte comprises the cation of the material from which the conductive interconnect layer is made, a complexing agent and a pH control agent. This limitation combined with the other limitations of original claims 15 and 32 describe elements not found in the combination of the Lu et al. published patent application and the Ho et al. patent. In addition, amended claim 1 contains limitations similar to those found in allowable claim 25. For these reasons, Applicant respectfully submits that claim 32 and dependent claims 34 and 36-41 which depend upon claim 32 are now in a condition for allowance. Applicant respectfully solicits reconsideration and allowance of claims 32, 34 and 36-41.

Fourth §103 Rejection of the Claims

Claims 42-44, 46, and 48-57 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu et al. in view of Ho et al. Claim 42 has been deleted thereby obviating the rejection.

Claim 44 has been rewritten to be an independent claims which includes the limitations of original claims 42 and 44. Applicant believes that these limitations already distinguish over the combination of the Lu et al. published patent application and the Ho et al. patent since the cited combination fails to show that both the electrochemically reducing step and the electrochemically depositing step are performed in a single electrochemical reaction cell utilizing a single electrolyte and where the electrolyte comprises the cation of the material from which the conductive interconnect material is made. Since a cation is a positively charged ion that migrates through the electrolyte from an anode toward a cathode under the influence of a potential gradient, the cation is necessarily the material of the anode. Thus, Applicant believes that all the limitations of claim 44 are not found in the cited combination.

Claim 43 has been amended to depend upon claim 44, which, as stated above, Applicant believes is allowable. Claims 46 and 48-57 already depend upon claim 44. Applicant believes claims 34, 44 and 48-57 are now in a condition for allowance. Reconsideration and allowance of these claims is respectfully solicited.

Allowable Subject Matter

Claims 12-14, 25-27, 33, 35, 45, and 47 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 33 and 35 depend upon claim 32 which Applicant believes is allowable as amended. Thus, claims 33 and 35 have not been amended. All other claims have been amended to be independent claims are now in a condition for allowance. Reconsideration and allowance of all claims is respectfully solicited.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6904 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 8 day of January, 2002.

Name Tina Kohout

Signature [Signature]